

Application No.: 09/577,790
Amendment and Response dated February 28, 2005
Reply to Office Action of December 29, 2004
Docket No.: 760-116 RCE II
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REMARKS

Applicant would like to thank Examiner Pellegrino for the personal interview with Applicant's representative on January 19, 2005.

Claims 1-3, 5-15, 17, 19, 21, 23 and 24 are currently pending in this application. Claims 1, 17, 21 and 24 have been amended. Claims 4 and 22 have been cancelled. Reconsideration is respectfully requested in view of the above amendments and the following remarks.

Applicant's Response to 35 U.S.C. § 103 Rejection over Schmitt in view of Kramer

Claims 1-6, 9-15, 17, 19, 22 and 23 are rejected under 35 U.S.C. § 103(a), as allegedly being obvious over U.S. Patent No. 5,443,499 to Schmitt (hereinafter "Schmitt") in view of U.S. Patent No. 5,871,468 to Kramer et al (hereinafter "Kramer"). Applicant respectfully traverses the rejection on the basis that the combination of references fails to render the claims obvious, as amended herein.

Schmitt has been cited for its alleged disclosure of a tubular fabric for use as a vascular prosthesis, which has a denier of 115 and 100 filaments that are partially oriented to be used for graft material and can be attached with a stent. According to the Examiner, "Schmitt discloses the plurality of polymeric filaments comprise a combination of undrawn and partially drawn radial filaments." In particular, the Examiner points to the disclosure at column 6, lines 55-56 of Schmitt as teaching a prosthesis having both undrawn and partially drawn filaments since, according to the Examiner, "part of the fabric can be made of undrawn filaments." The Examiner acknowledges that Schmitt does not disclose polymeric filaments of a naphthalene copolymer. The Examiner cited Kramer, however, for its alleged disclosure of polyester fibers, such as polyethylene naphthalate, for use in medical devices. According to the Examiner, it would have been obvious to use the material allegedly taught in Kramer in the prosthesis of Schmitt.

Applicant has amended independent claims 1 and 17 to further define embodiments of the invention. In particular, Applicant has added a recitation in claims 1 and 17 that further defines the textile construction of the implantable prosthesis fabric. More specifically, Applicant has amended claims 1 and 17 to require the textile construction to be woven. As recited in the amendment, the woven construction includes a plurality of radial filaments and a plurality of longitudinal filaments. The longitudinal filaments are disposed longitudinally along the length of the prosthesis. The radial filaments are disposed generally perpendicular to the longitudinal filaments. The radial, generally perpendicular, filaments include a combination of undrawn and partially drawn filaments. This amendment is supported by Figs. 1 and 2, as originally filed.

Although the Examiner alleges that Schmitt discloses a prosthesis having a combination of undrawn and partially drawn radial filaments, the disclosure referenced by the Examiner relates only to braided and knitted constructions.

As indicated above, claims 1 and 17 have been amended to require a woven construction. In contrast to braids and knits, Schmitt states that “[i]n the case of woven patterns, the undrawn materials make up the fill yarns.” (Schmitt; col. 6; lines 51-53). Fill yarns are commonly understood to be radial yarns. Therefore, Schmitt teaches the use of undrawn yarns in the radial direction for woven prostheses. Schmitt does not disclose, teach or suggest the incorporation of both undrawn and partially drawn yarns in the radial direction when the prosthesis is a woven construction.

Furthermore, Kramer is cited merely for its alleged disclosure of two naphthalene dicarboxylate derivatives. Nowhere in Kramer is a prosthesis having a woven construction in which the radial filaments include a combination of undrawn and partially drawn filaments disclosed, taught or suggested. Therefore, Kramer fails to cure the deficiencies of Schmitt as a reference with respect to claims 1 and 17, as amended herein. In view thereof, amended claims 1

and 17, and thus any claims that depend therefrom, are not obvious in view of the teachings of Schmitt in combination with Kramer.

With respect to independent claims 11 and 23, both claims require that the fabric includes a combination of polyethylene naphthalate (PEN) and polybutylene naphthalate (PBN). In contrast to the Examiner's allegations, Kramer does not disclose such a combination. In particular, Kramer relates to balloons for use in catheters. According to Kramer, the balloon preferably is composed of a blend of two components: a major component and a minor component.

The major component is an aromatic polyester. The aromatic polyester is formed from two components: (1) an aromatic dicarboxylic acid; and (2) an aliphatic diol. Kramer provides examples of each of these two components and states that combinations of acids or diols may be used. (Kramer; col. 4, lines 32-40). The final product is an aromatic polyester. According to Kramer, examples of preferred aromatic polyesters include polyethylene terephthalate (PET), polyethylene naphthalate (PEN) and polybutylene naphthalate (PBN). (Kramer; col. 4, lines 40-44). Kramer, however, does not disclose combinations of more than one aromatic polyester, as alleged by the Examiner. Although Kramer discloses that combinations of acids or diols may be used to form the aromatic polyester, as stated above, blends of more than one final aromatic polyester are not disclosed. Therefore, the major component does not contemplate a blend of PEN and PBN.

The minor component in Kramer's blend is a secondary thermoplastic semicrystalline polymer. The minor component has "a crystallinity less than that of the aromatic polyester of the major component." (Kramer; col. 3, lines 65-66). Therefore, the minor component is not one of the aromatic polyesters disclosed as the major component, i.e., the minor component is not PET, PEN or PBN.

In view of the above, Kramer discloses blends of a major and a minor component. The major component may be PET, PEN or PBN. The major component, however, does not include more than one of these polyesters. Further, the minor component is not PET, PEN or PBN. Nowhere in Kramer, therefore, are combinations of PEN and PBN disclosed or suggested. As such, claims 11 and 23, which require a combination of PEN and PBN, and thus any claims that depend therefrom, are not obvious in view of the teachings of Schmitt in combination with Kramer.

In view of the foregoing remarks, Applicant respectfully requests reconsideration and withdrawal of the Section 103 rejection based on the combination of Schmitt and Kramer.

Applicant's Response to 35 U.S.C. § 103 Rejection over Schmitt in view of Kramer and Kuwahara

Claim 8 is rejected under 35 U.S.C. § 103(a), as allegedly being obvious over Schmitt in view of Kramer and WO 99/04727 to Kuwahara (hereinafter "Kuwahara"). Applicant respectfully traverses the rejection on the basis that the combination of references fails to render the claim obvious, as amended herein.

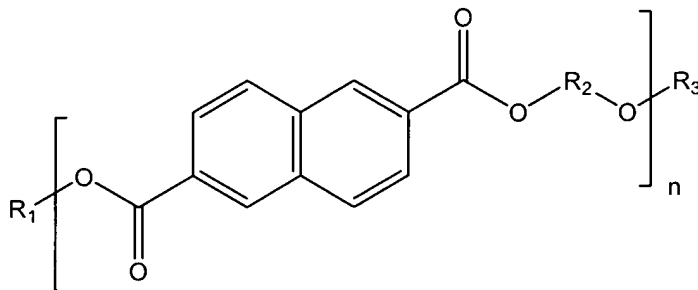
Claim 8 depends from claim 1, and thus, requires all of the limitations of claim 1, as amended herein. As discussed in detail above with regard to claim 1, Schmitt fails to disclose, teach or suggest a prosthesis having a woven construction in which the radial filaments include a combination of undrawn and partially drawn filaments. Also discussed above, Kramer fails to cure the deficiencies of Schmitt in this regard. Kuwahara, which is cited merely for its disclosure of coating a prosthesis, similarly fails to cure the deficiencies of Schmitt in this regard.

Therefore, claim 8 is not obvious in view of the teachings of Schmitt in combination with Kramer and Kuwahara. Applicant respectfully requests reconsideration and withdrawal of the Section 103 rejection based on this combination.

Applicant's Response to 35 U.S.C. § 103 Rejection over Schmitt in view of Kuwahara and Schmitt '970

Claim 21 is rejected under 35 U.S.C. § 103(a), as allegedly being obvious over Schmitt in view of Kuwahara and U.S. Patent No. 5,697,970 to Schmitt (hereinafter "Schmitt '970"). Applicant respectfully traverses the rejection on the basis that the combination of references fails to render the claim obvious, as amended herein.

Claim 21 has been amended herein to require that the prosthesis fabric include at least two naphthalene dicarboxylate derivatives. More specifically, amended claim 21 requires at least two naphthalene dicarboxylate derivatives of the following formula:



The Examiner cited Kuwahara for its disclosure of polyester fibers made of PEN. Nowhere in Kuwahara, however, are combinations of more than one polyester disclosed, taught or suggested, as recited in amended claim 21. Therefore, Kuwahara fails to cure the deficiencies of Schmitt in this regard.

Moreover, were the Examiner to cite Kramer against amended claim 21, arguments similar to those presented above for claims 11 and 23 would apply. In particular, Kramer does

not disclose or suggest a combination of at least two aromatic polyesters conforming to the above formula. The above formula encompasses PEN and PBN, among others. As discussed in detail above, Kramer discloses blends of a major and a minor component, but such blends do not encompass combinations of more than one polyester conforming to the above formula. Therefore, Kramer also would fail to cure the deficiencies of Schmitt in this regard.

Furthermore, Schmitt '970 is cited merely for its disclosure of adding crimps to a prosthesis. Schmitt '970 fails to cure the deficiencies of Schmitt and Kuwahara with respect to amended claim 21. Therefore, claim 21, as amended herein, is not obvious in view of the teachings of Schmitt in combination with Kuwahara and Schmitt '970. Applicant respectfully requests reconsideration and withdrawal of the Section 103 rejection based on this combination.

Applicant's Response to 35 U.S.C. § 103 Rejection over Schmitt in view of Kuwahara

Claim 24 is rejected under 35 U.S.C. § 103(a), as allegedly being obvious over Schmitt in view of Kuwahara. Applicant respectfully traverses the rejection on the basis that the combination of references fails to render the claim obvious, as amended herein.

Similar to claims 1 and 17, claim 24 has been amended herein to require that the textile construction of the prosthesis is woven. As discussed in detail above, Schmitt fails to disclose, teach or suggest the incorporation of both undrawn and partially drawn yarns in the radial direction when the prosthesis is a woven construction.

Kuwahara is cited merely for its disclosure of fibers made of PEN. Nowhere in Kuwahara is a prosthesis having a woven construction in which the radial filaments include a combination of undrawn and partially drawn filaments disclosed, taught or suggested. Therefore, Kuwahara fails to cure the deficiencies of Schmitt with respect to claim 24, as amended to require a woven construction. In view thereof, amended claim 24 is not obvious in view of the teachings of Schmitt in combination with Kuwahara.

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Applicant respectfully requests reconsideration and withdrawal of the Section 103 rejection based on this combination.

Should the Examiner have any questions or comments concerning the above, the Examiner is respectfully invited to contact the undersigned attorney at the telephone number given below.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Jamie M. Larman', is written over a horizontal line.

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